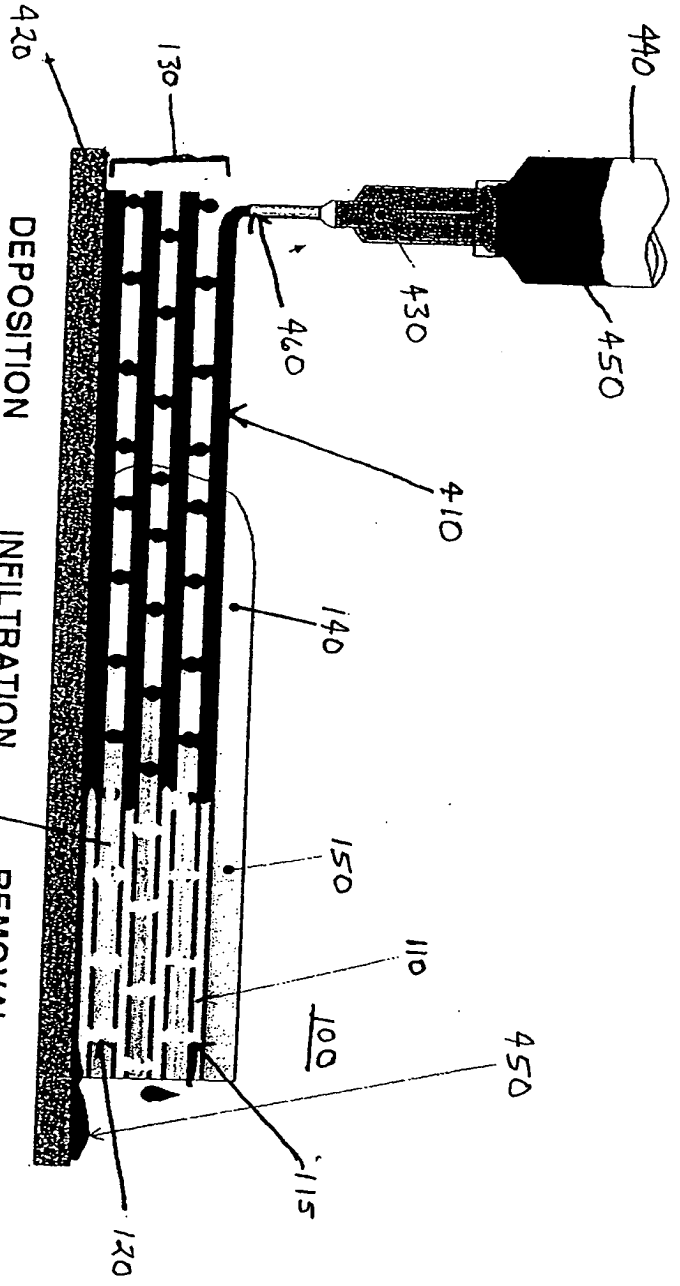


FIG. 1

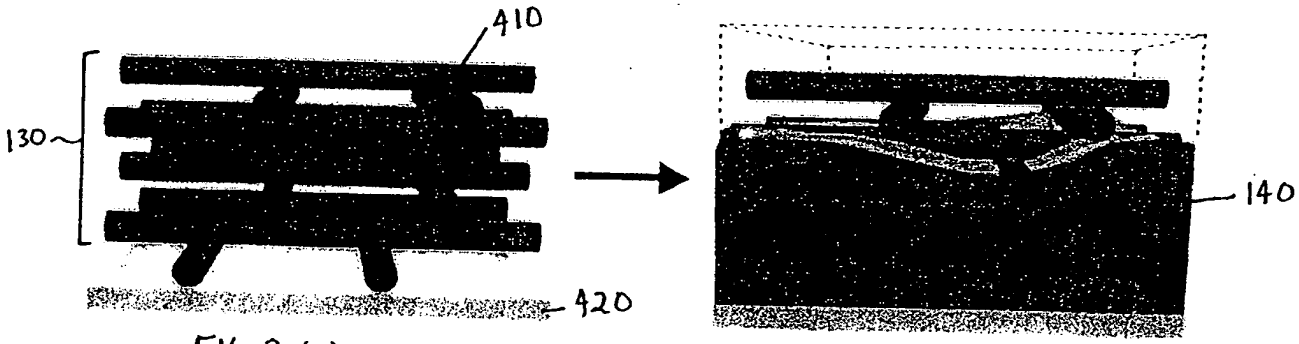


FIG. 2 (a)

FIG. 2 (b)

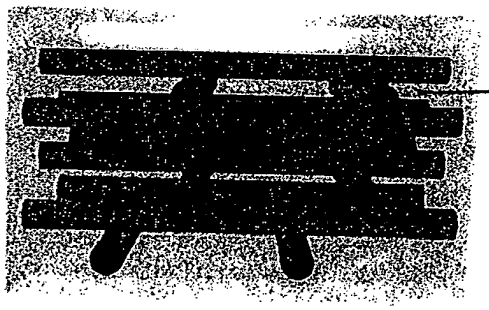


FIG. 2 (c)

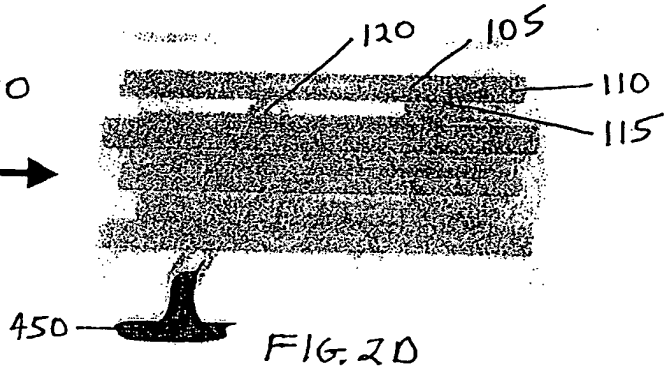


FIG. 2D

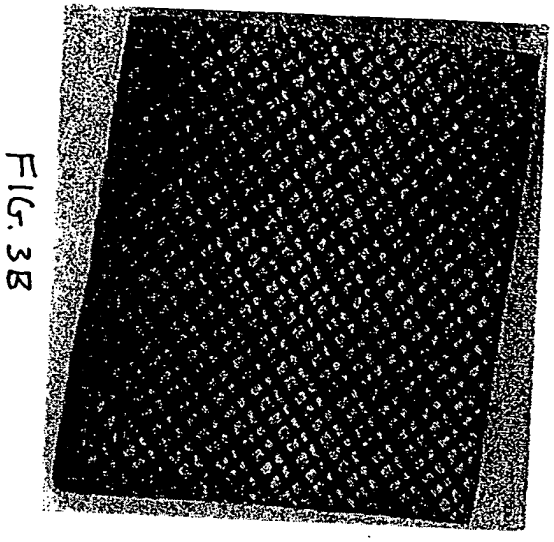


FIG. 3B

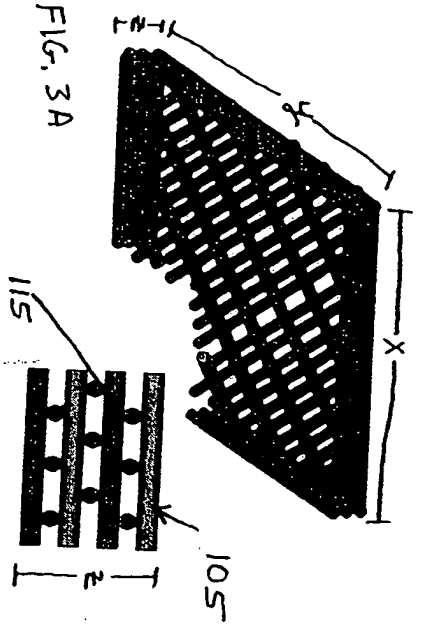


FIG. 3A

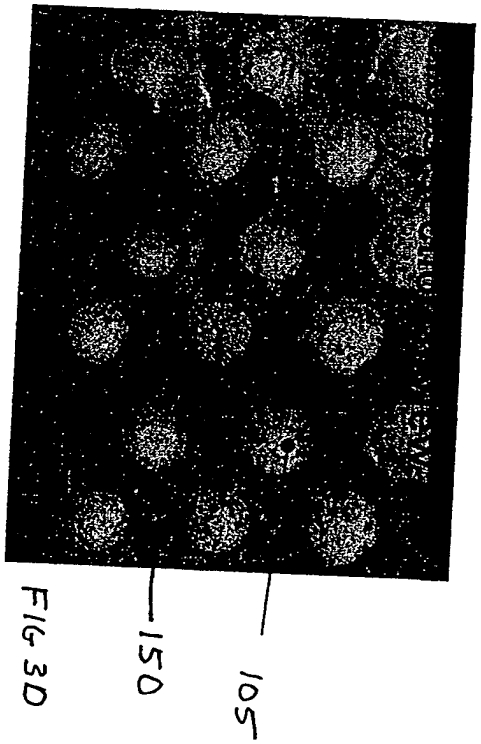


FIG 3D

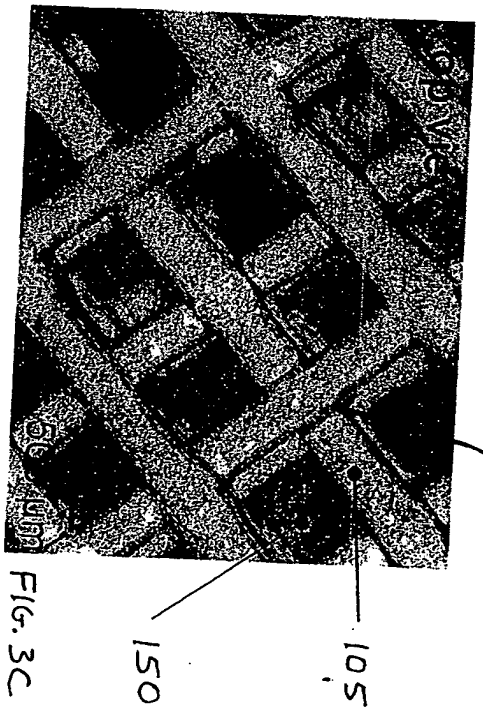


FIG. 3C

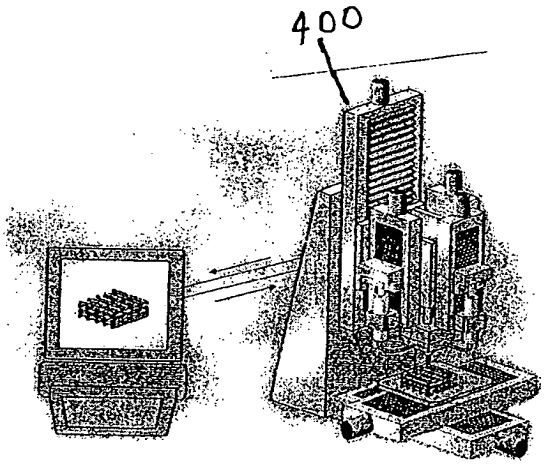


FIG. 4 (a)

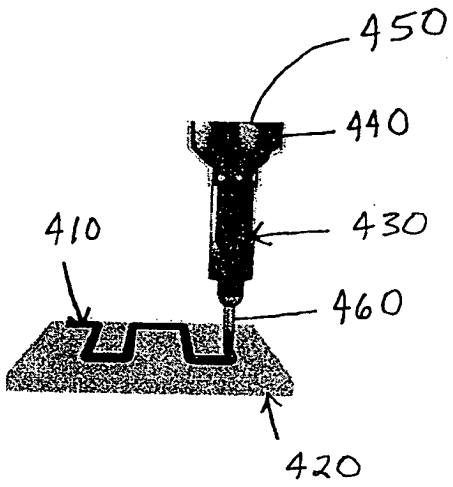


FIG. 4 (b)

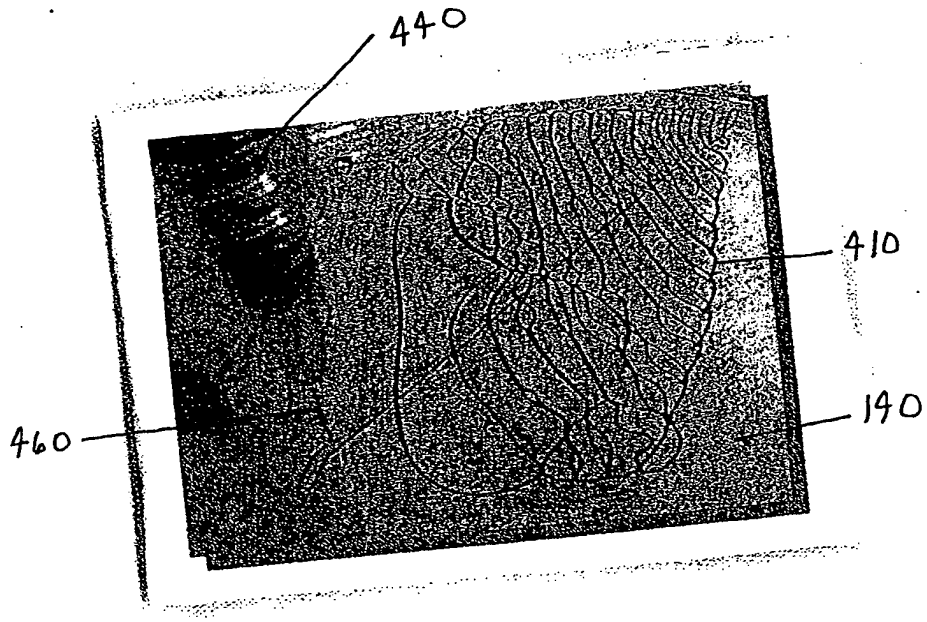
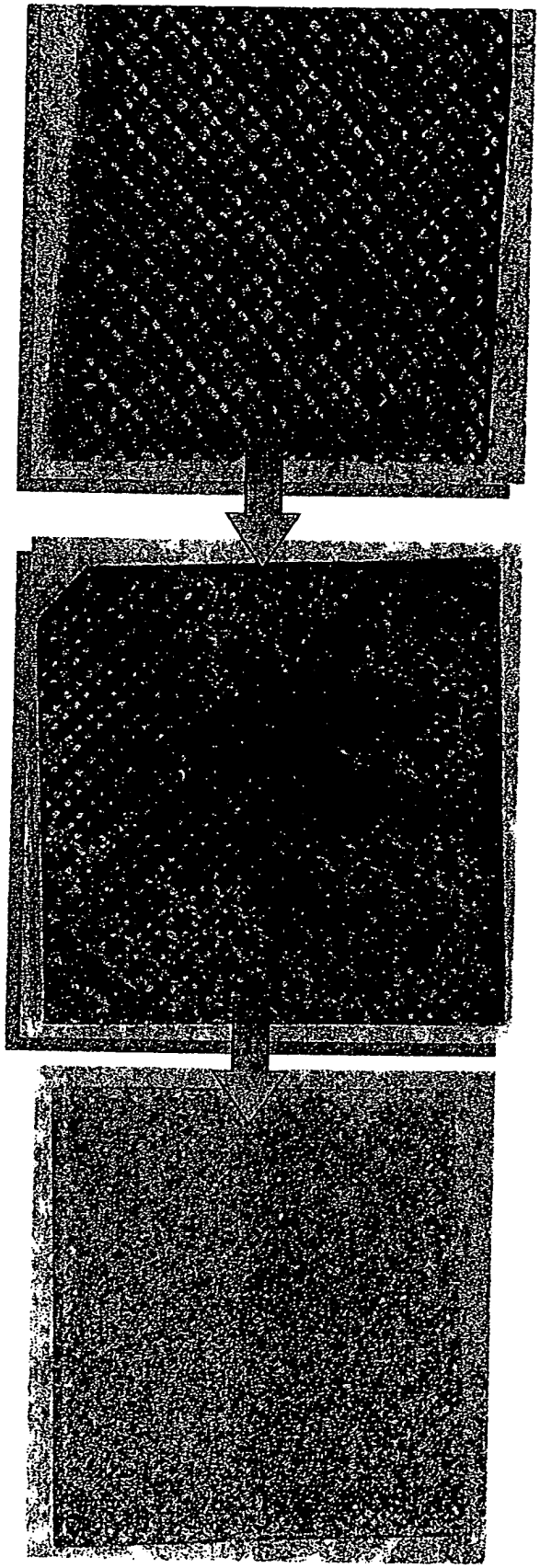


FIG. 5



Full Passageways
FIG. 6A

Partially empty Passageways
FIG. 6B

Empty Passageways
FIG. 6C

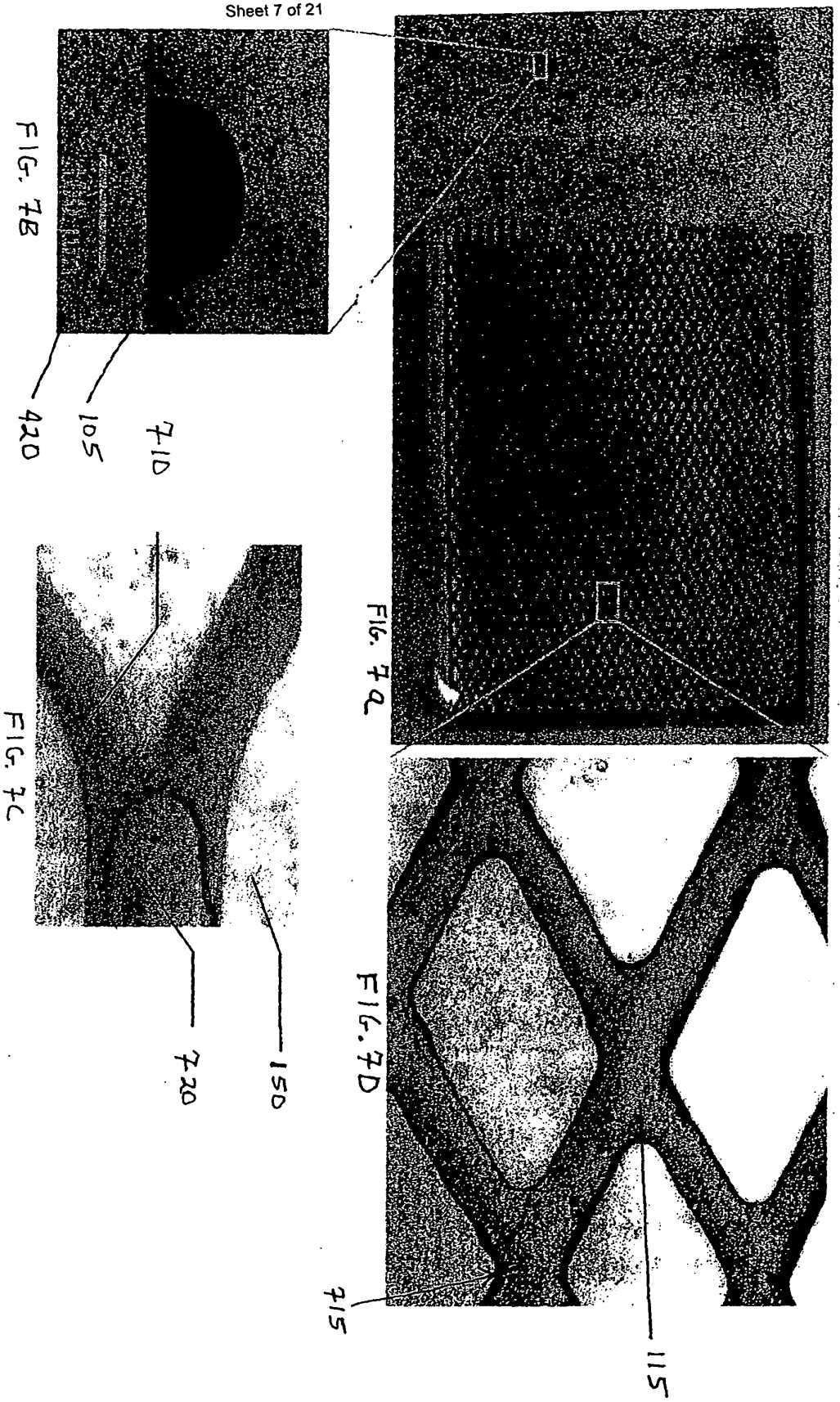


FIG. 7B

FIG. 7A

FIG. 7C

FIG. 7D

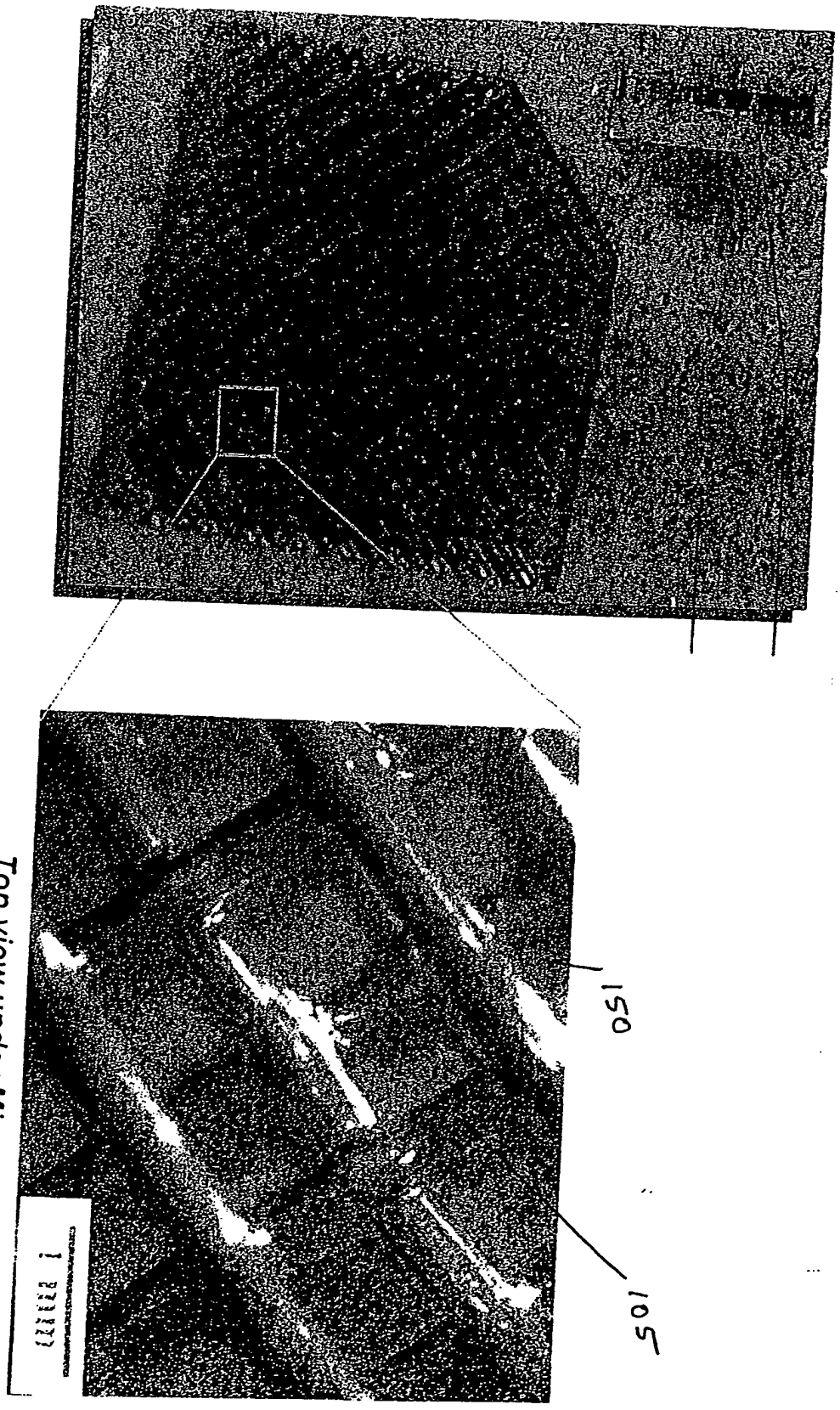


FIG. 8

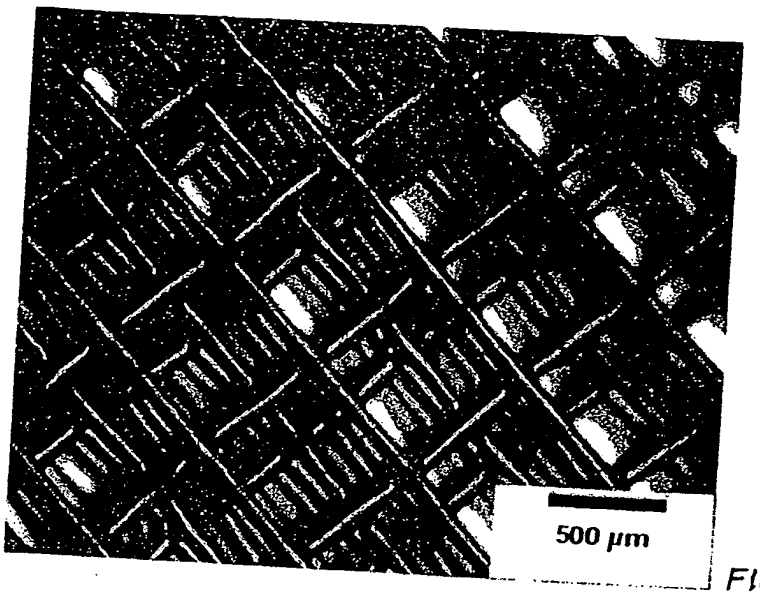


FIG. 9A

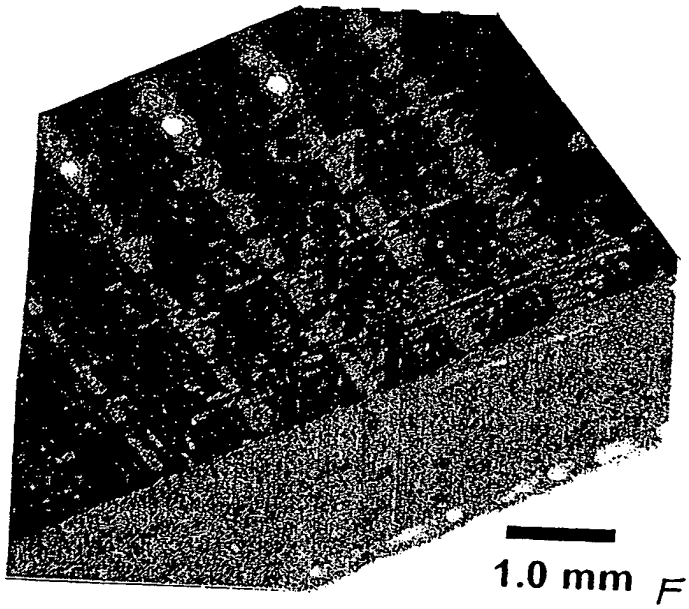


FIG. 9B

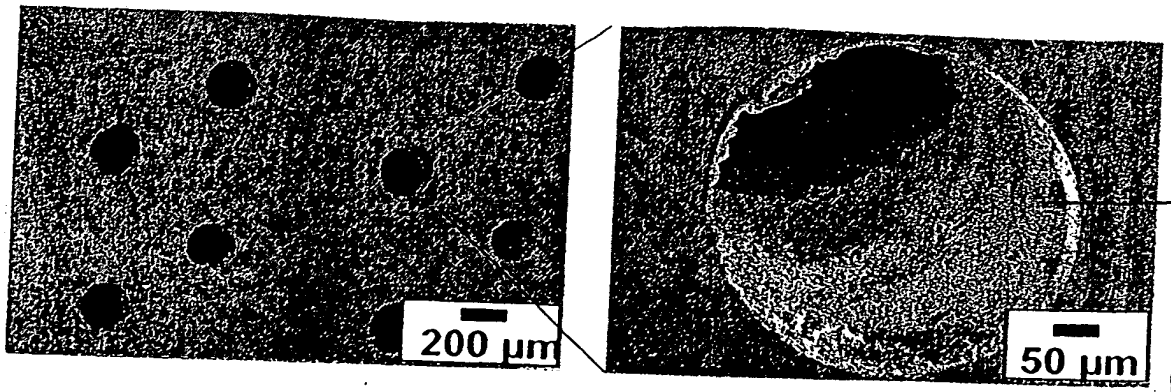


FIG. 9C

Passageway cross section

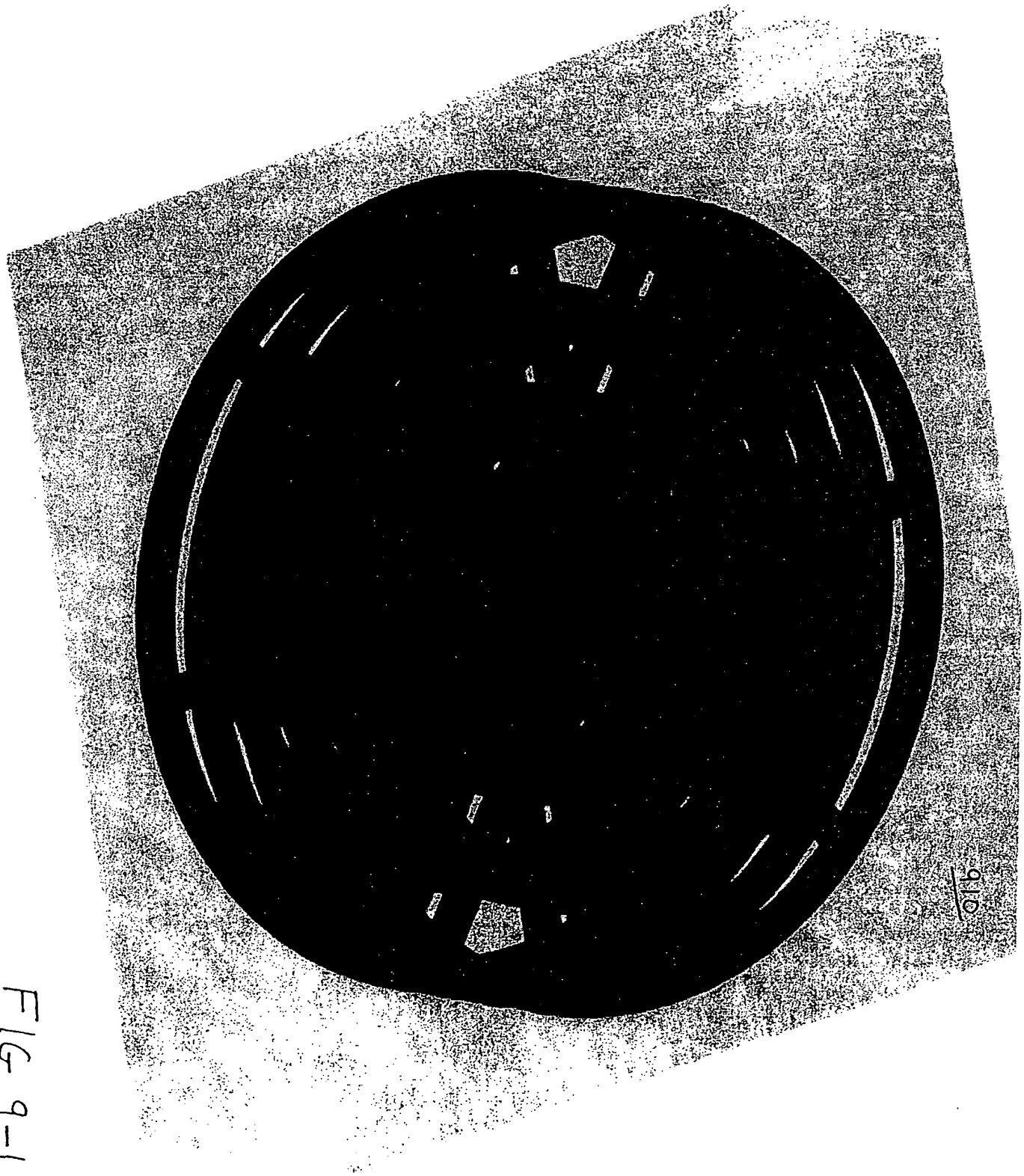
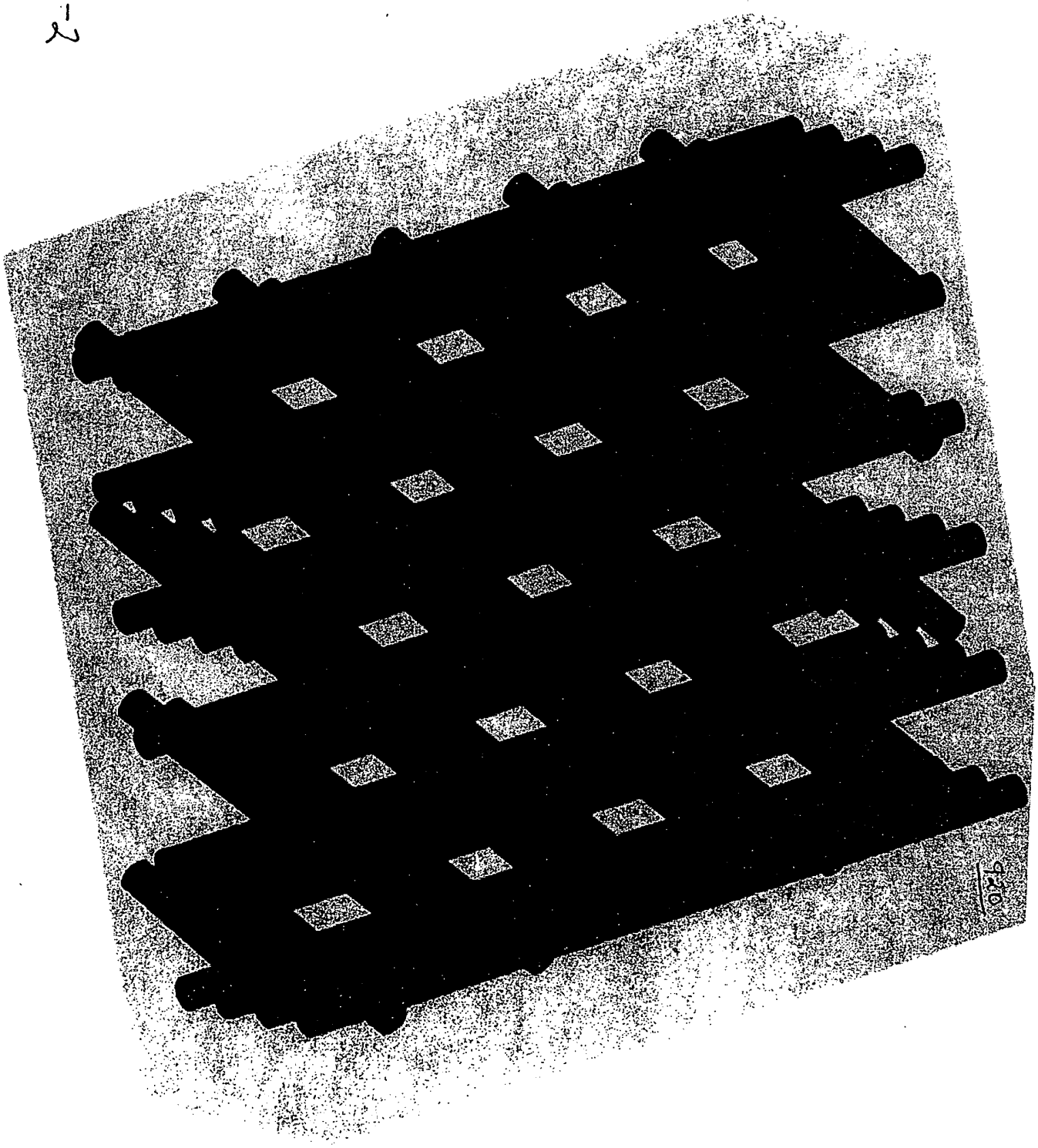


FIG. 9-1

FIG. 9-2



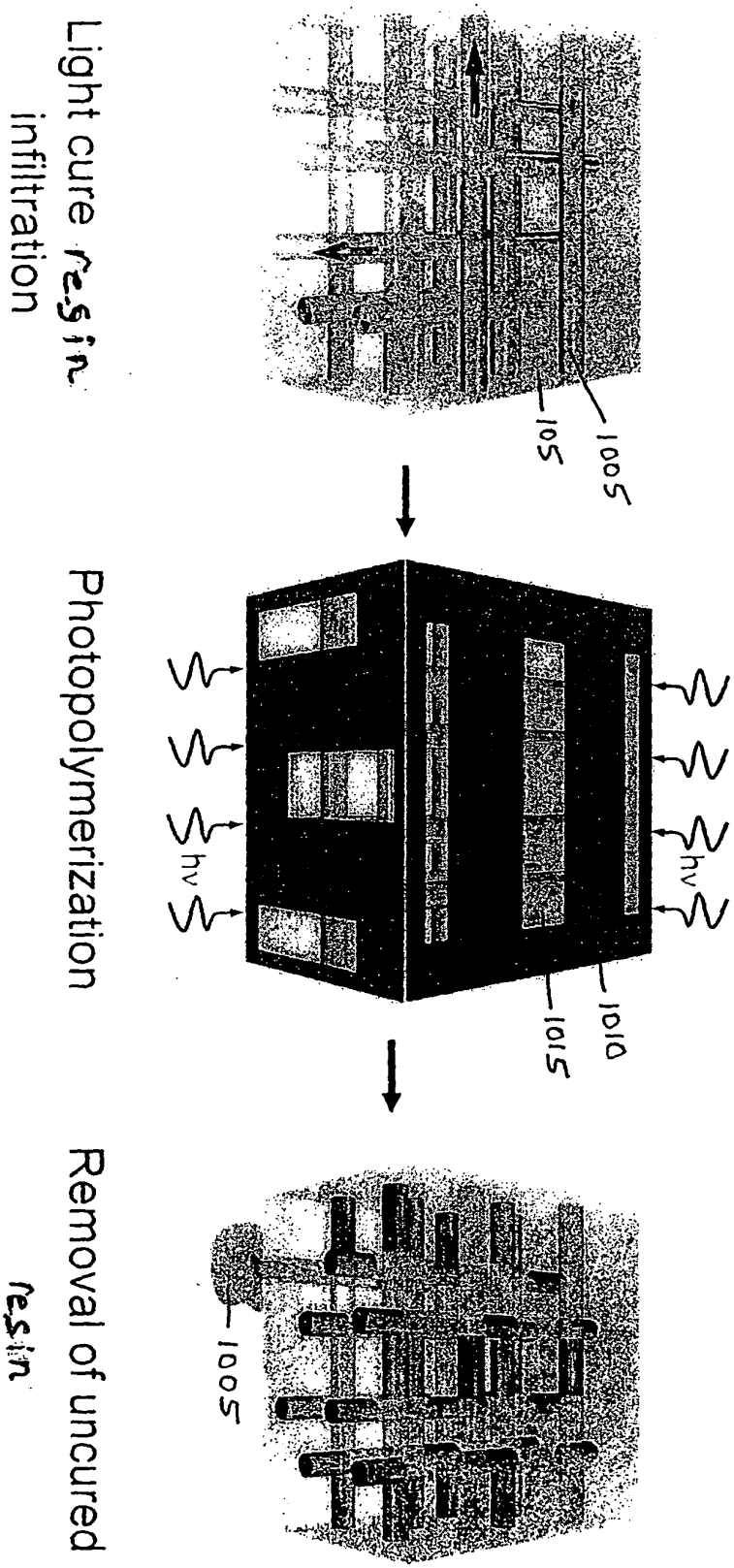


FIG. 10

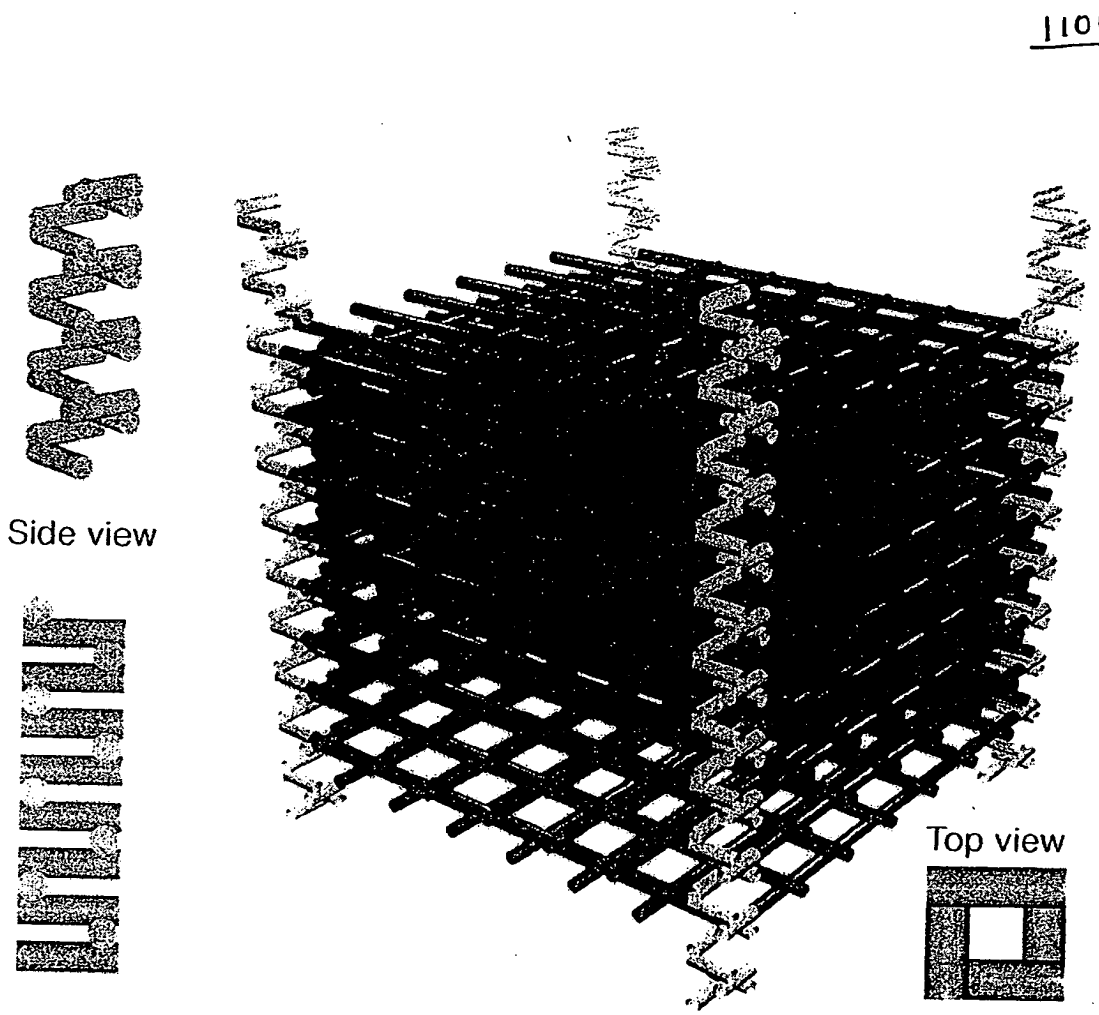


FIG. 11

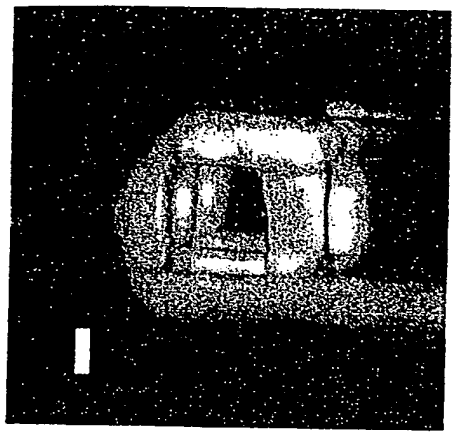


FIG. 12A

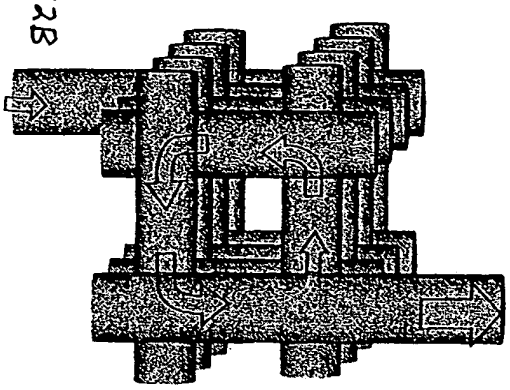


FIG. 12B

Top view

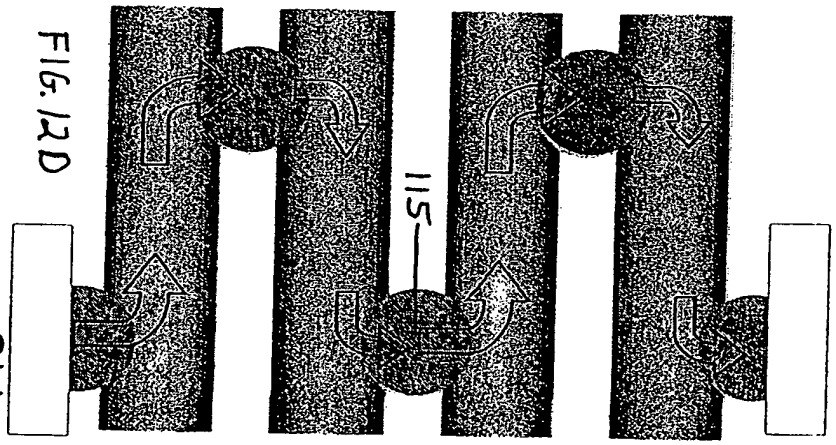


FIG. 12D

Side view

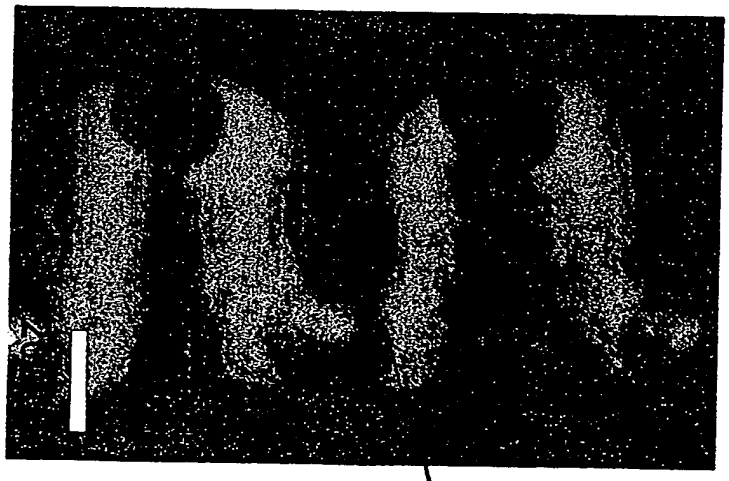


FIG. 12C

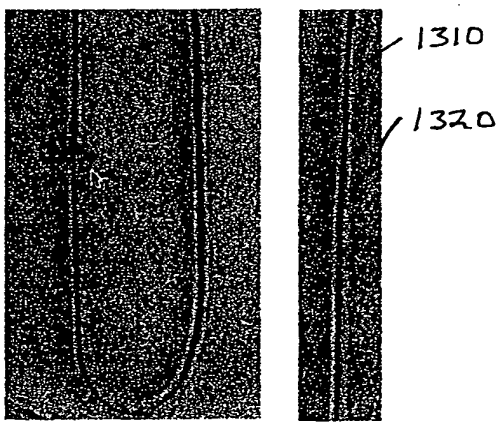
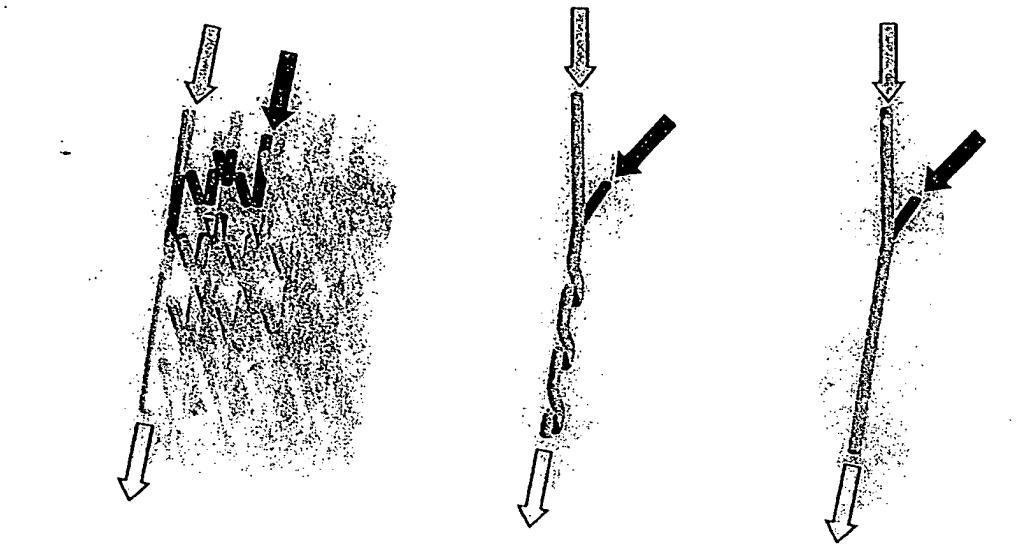


FIG. 13



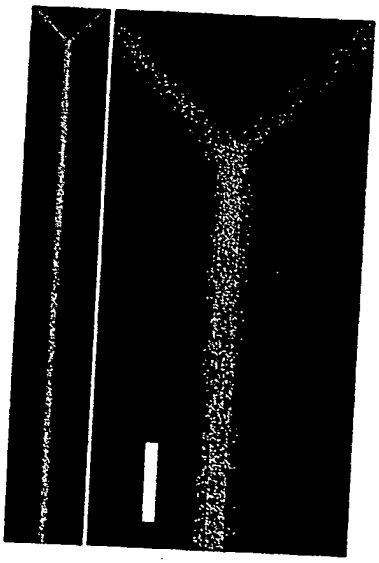


FIG. 14A

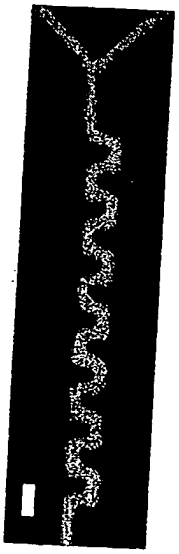


FIG. 14B

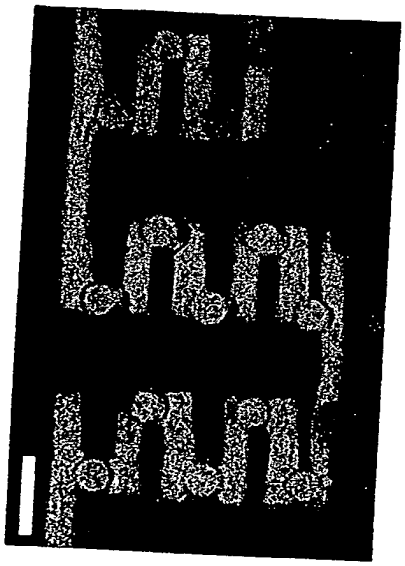


FIG. 14C

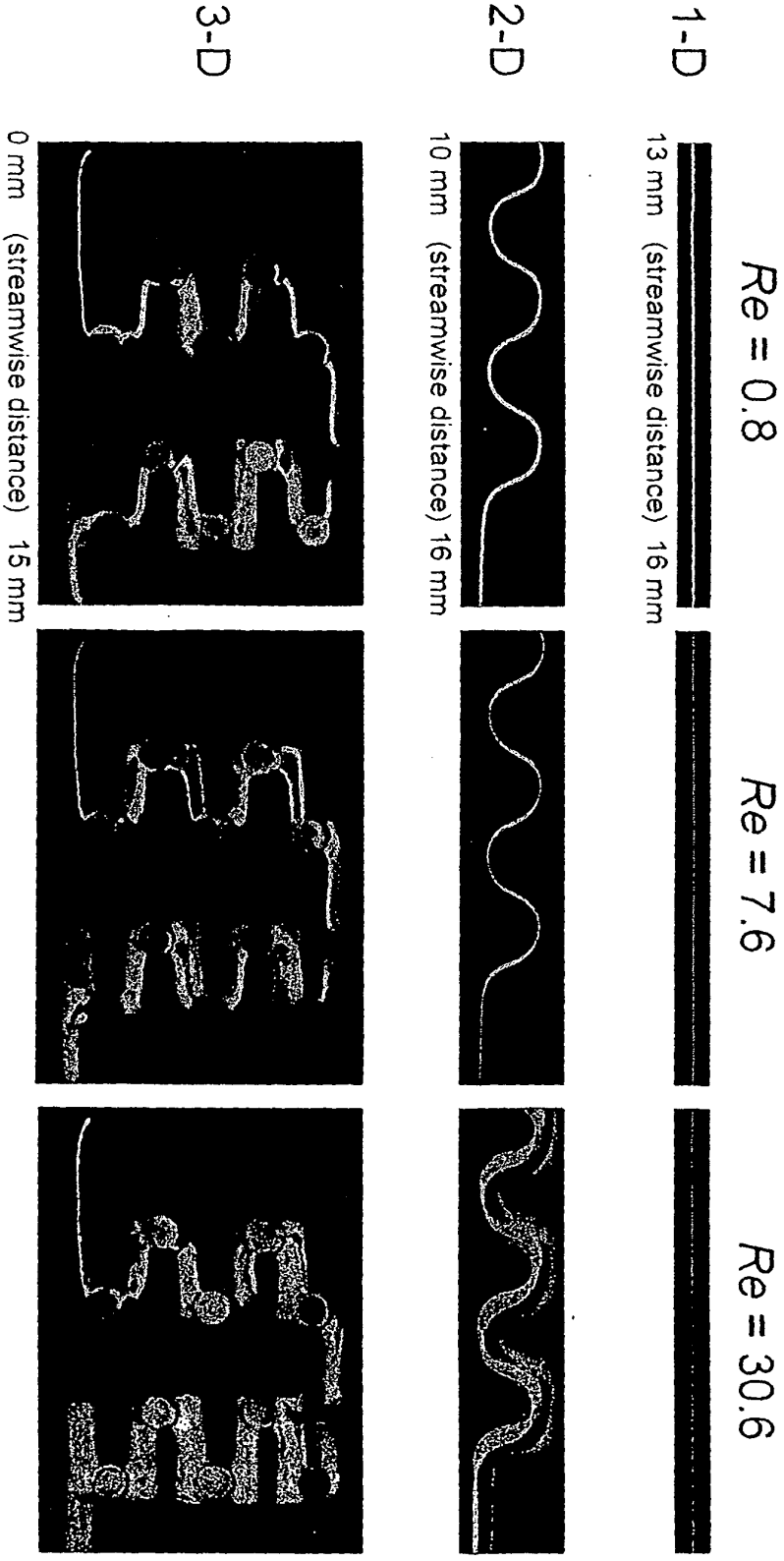


FIG. 15

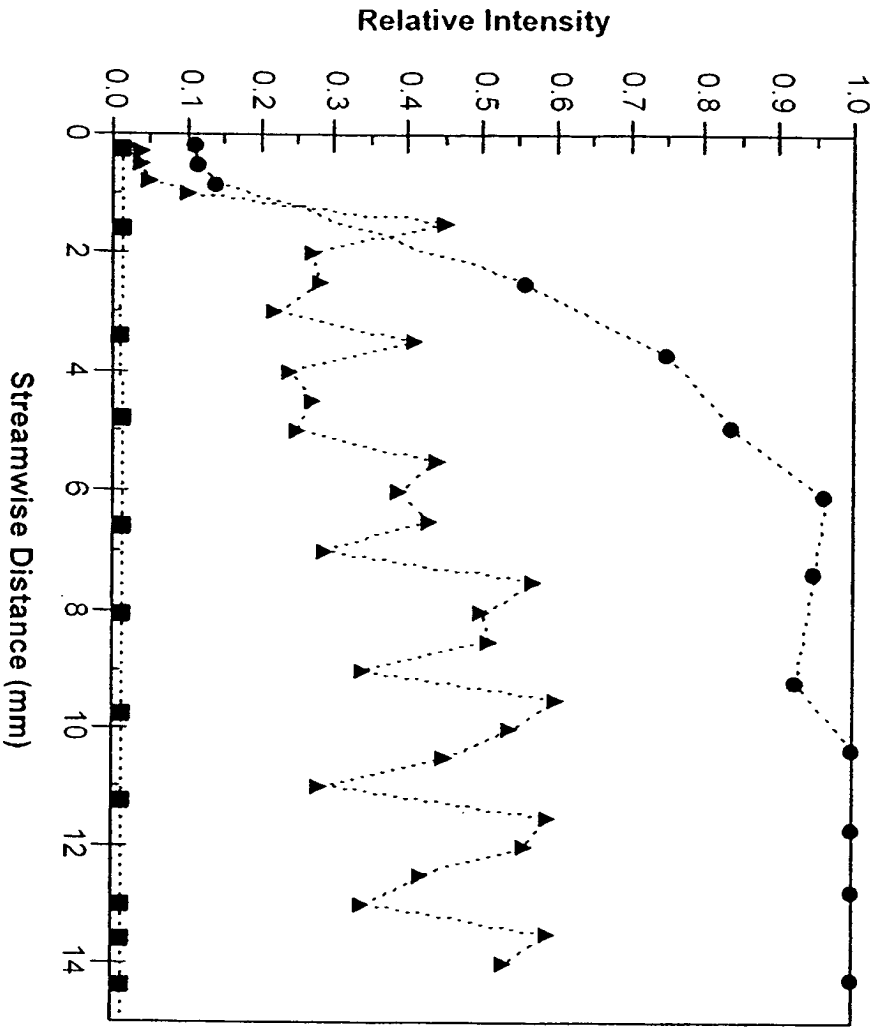


FIG. 16

Circle: 3-D
Triangle: 2-D
Square: 1-D
(all points at Re = 30.6)

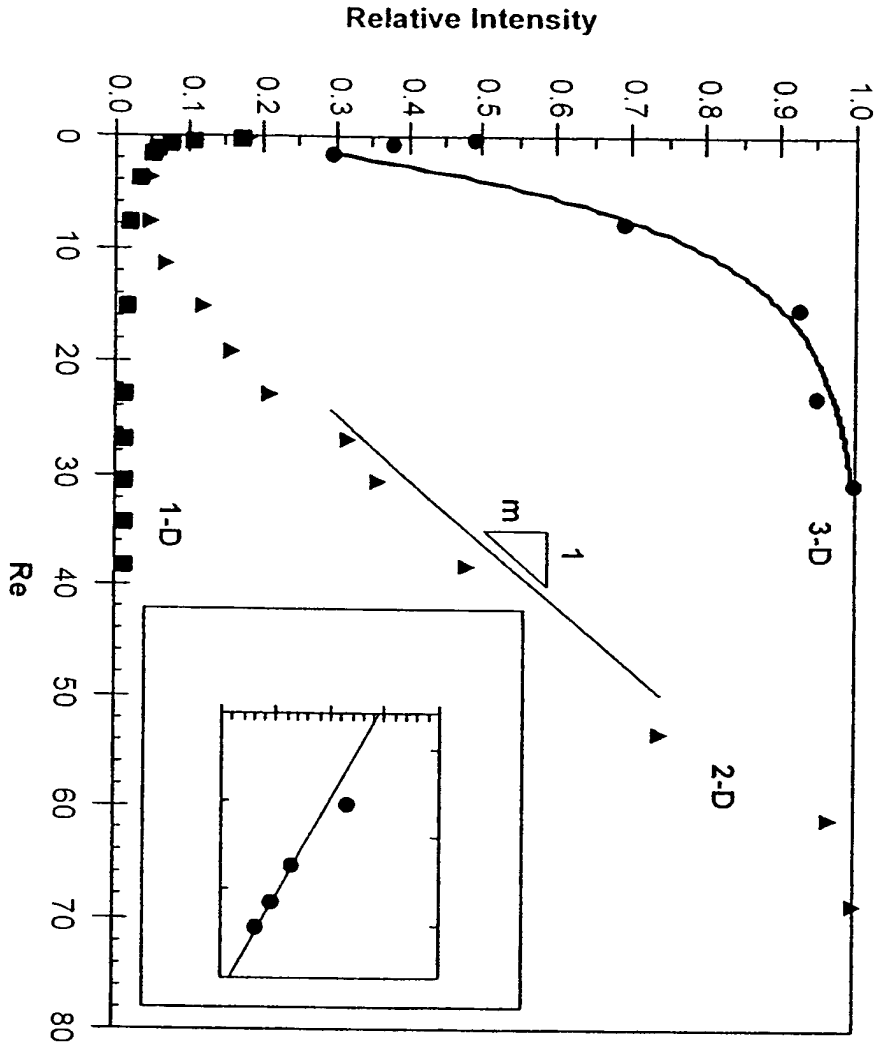


FIG. 17

Circle: 3-D
Triangle: 2-D
Square: 1-D

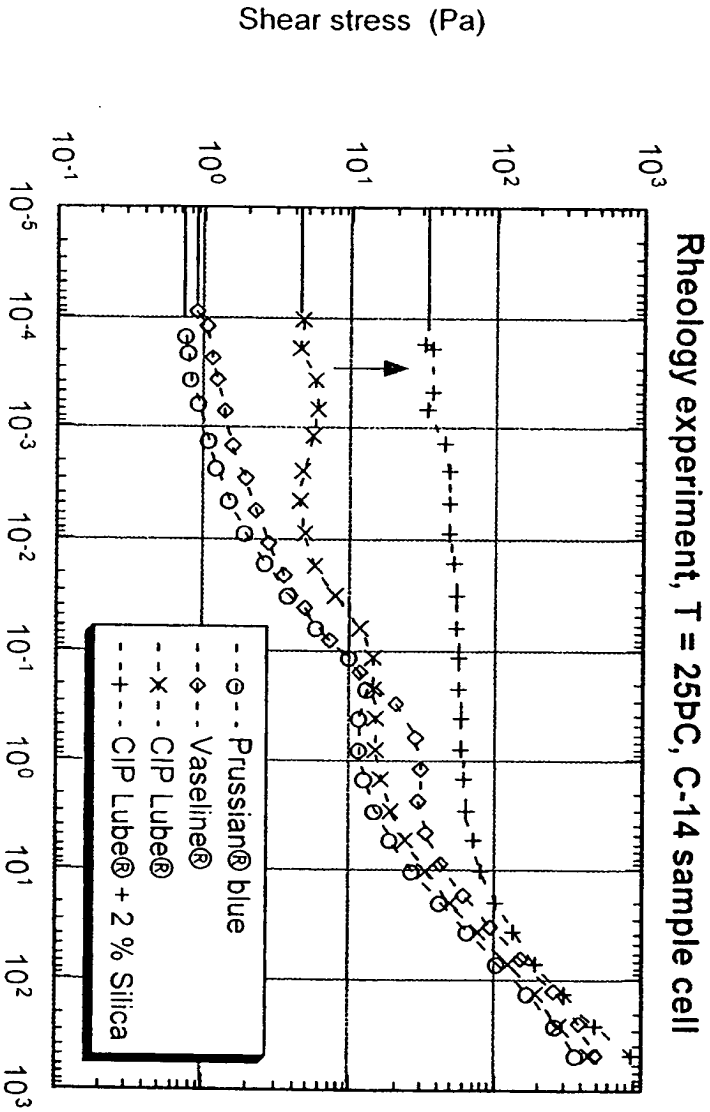


FIG. 18

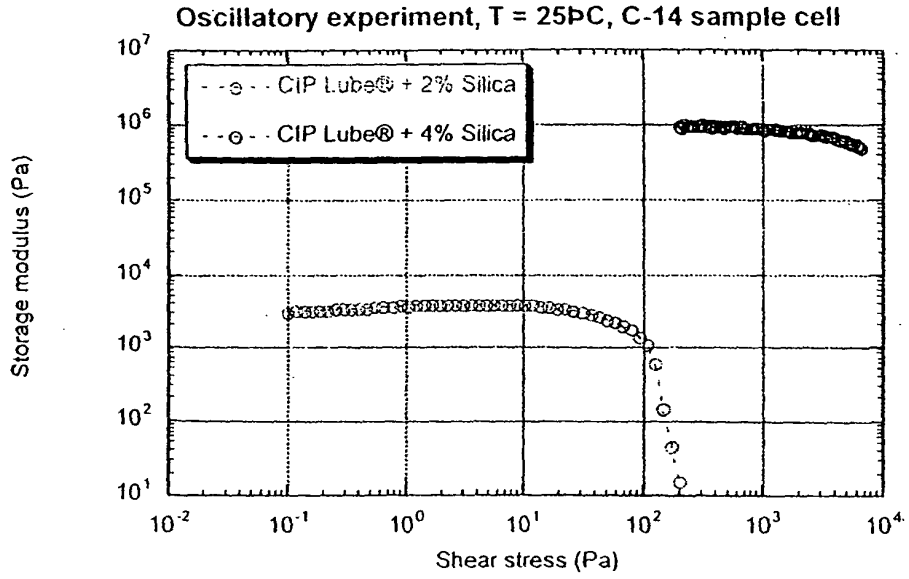


FIG. 19